

**Patent Claims**

1. Method of working up liquid substances, characterized  
in that the liquid substance to be worked-up is mixed  
continuously with a washing liquid in one or more  
microreactors and/or micromixers.  
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2. Method according to Claim 1, characterized in that  
the internal channel diameter of the microreactor  
and/or micromixer is at least 50  $\mu\text{m}$ .
3. Method according to Claim 1 or 2, characterized in  
that the internal channel diameter of the  
microreactor and/or micromixer is at least 100  $\mu\text{m}$ .  
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4. Method according to one or more of Claims 1 to 3,  
characterized in that the internal channel diameter  
of the microreactor and/or micromixer is not more  
than 3000  $\mu\text{m}$ .  
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5. Method according to one or more of Claims 1 to 4,  
characterized in that the internal channel diameter  
of the microreactor and/or micromixer is not more  
than 1000  $\mu\text{m}$ .
- 20 6. Method according to one or more of Claims 1 to 5,  
characterized in that the flow of the liquids in the  
microreactor and/or micromixer is laminar.
7. Method according to one or more of Claims 1 to 6,  
characterized in that the flow of the liquids in the  
microreactor and/or micromixer has a Reynolds number  
of  $< 1000$ .  
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8. Method according to one or more of Claims 1 to 7,  
characterized in that the microreactor and/or  
micromixer contains microstructured passive mixing  
structures.  
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9. Method according to one or more of Claims 1 to 8, characterized in that the microreactor and/or micromixer contains glass or silicon as material.
- 5 10. Method according to one or more of Claims 1 to 9, characterized in that the microreactor and/or micromixer contains metal, ceramic or enamel as material.
- 10 11. Method according to one or more of Claims 1 to 10, characterized in that the mixture that leaves the microreactor and/or micromixer and that is composed of liquid (valuable) substance and washing liquid flows into a vessel having an upper and a lower drain so that the already separated liquid phases can be drawn off.
- 15 12. Method according to one or more of Claims 1 to 10, characterized in that, in addition to an upper and a lower drain, the vessel also has one or more additional drains via which further liquid phases can be drawn off.
- 20 13. Method according to one or more of Claims 1 to 12, characterized in that the washing and separating operation is repeated by connecting a plurality of microreactors and/or micromixers downstream of one another in series and/or is varied by adding other  
25 washing liquids in each one.
14. Method according to one or more of Claims 1 to 13 for working up liquid nitrate esters.
15. Method according to one or more of Claims 1 to 13 for working up nitroglycerol.